

Editorial

Education for twenty-first century librarians

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Abstract

Humboldt University invited experts to Berlin recently to offer advice about its library science program. While the education of librarians for the twenty-first century needs to include practical training, those who plan to work in a research environment, or who want a research degree like a PhD, need to acquire a methodology that grounds their work in an established scholarly context.

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Introduction

Humboldt University invited me to Berlin recently to serve as an “expert” for a group making some fundamental decisions about their library science program, with implications for the rest of Germany. In reality I am no expert, at least as far as curriculum development and teaching standards go, but the focus of the meeting dealt with broad issues relating to basic research, the nature of information, and the extent to which librarians need formal academic training.

As someone whose own research methodology is largely anthropological, I was conscious of my role as both a foreign expert and someone chosen because he is familiar with German language and German culture. Unfortunately this knowledge included little about the education of German librarians. I had to rely on friends to educate me fast[1].

Library education in Germany

The German model for library education emphasizes practical training. Most librarians receive training at *technische Hochschulen*, often translated as polytechnics or technical colleges, not at ordinary universities. Many of the teachers have PhDs from other disciplines, but not in library science. Humboldt is at present the only library school in Germany that can offer doctorates in library science. German library schools also offer different training, depending on what kind of job people expect in a library.

For example, the Bavarian Library School, like many others, offers three levels of degrees (Bayerische Staatsbibliothek, 2004). The lowest level requires only ten years of schooling, and trains people for what in the USA might be called “support staff” jobs. The middle level requires the German high school diploma or *Abitur*, which includes one to two years of a US college curriculum. And the third and highest level requires some form of completed university study and generally a PhD. Since the administrative ranks of German librarians come mainly from the latter category, their academic credentials often outweigh those of transatlantic colleagues. They also have research specializations that resonate with the teaching faculty at German universities. Thus the system effectively combines practical, hands-on, library-oriented training with serious

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research in another field. There is nothing low quality about the results. Quite the opposite.

The research focus

When granting a doctorate in library science, Humboldt wants to make sure of having an appropriate research focus, and this was a key question for the experts. Research in my experience has at least two components. One is the content: what one studies. Some disciplines are very content-driven. History, for example, is about the past, and however a scholar approaches the eras and issues, the stuff of the past remains the core element that makes it history. Many natural sciences are like that too. Biology is fundamentally the study of living things, and chemistry the study of atomic and molecular interactions.

Other disciplines like economics are fundamentally methodology. The contents of what economists study may overlap a field like history, but they emphasize tools for examining particular aspects. Several disciplines occupy a middle ground, with a balanced blend of method and content. Anthropology in its classic form, for example, mixes descriptive methodology with a third-world content, though in recent decades the range of content has grown broader and the methodology more salient.

Library science is fundamentally a content-centered discipline with “information,” regardless of format, as its subject. Meeting participants agreed early on that the future of libraries lies with digital information and digital libraries, not in warehousing vast amounts of paper. That established the content-focus for research, but not its methodology.

When non-librarians talk about a library science methodology they usually think of classification systems like Dewey or Library of Congress. Practitioners might expand that to MARC (Machine Readable Cataloging), AACR2 (Anglo American Cataloging Rules, 2nd edition), and the reference interview. Neither is a methodology for research, but rather tools for managing library collections and patrons.

In recent years the best library schools have put a strong emphasis on introducing masters students to social science research methodology. The School of Information at the University of Michigan offers a prime example:

All students must take four three-credit “Foundations” courses that introduce students to the fundamentals of library and information science, computer science, psychology and economics. Foundations courses are often team-taught by faculty from two underlying disciplines (School of Information, 2004).

The disciplines listed here show some of the research areas which have had an immediate impact on librarianship in the USA. Psychology, for example, helps both to understand the human-to-human interaction during the reference interview, and to refine the forms of human-to-computer interaction that takes place in a digital library environment. Economics helps to explain pricing models for online resources as well as the fundamentals of everyday operation for institutions that never thought of themselves as integral to a market economy.

Computer science serves a role that statistics plays in many numerically-oriented social sciences. Digital libraries are fundamentally computer science creations. Librarians do not necessarily have to understand how to build new digital library platforms, any more than a psychologist needs to be able to invent a new statistical test in order to apply one of the standard statistical packages correctly. Librarians do need at a minimum to understand the structure underlying digital libraries, and to be able to manipulate digital artifacts using appropriate tools.

The disciplines represented in the “fundamentals” courses at the School of Information do not represent an exhaustive list. Anthropology certainly has a role in library science research, since a significant part of the contents of librarianship involves an understanding of cultural and micro-cultural differences within library populations. The internationalization of information on the Internet also makes the role of language and linguistics more salient. The English-speaking library world still has much to learn about how language enables or inhibits access to information. Nor is the issue merely one of translation. The post-structuralist consciousness of social meaning can inform judgments about a help screen or web page as readily as about a novel.

Why methodology matters

I found myself explaining at one point in the meeting why methodology matters. Some colleagues preferred to focus on the stuff of libraries and especially digital libraries. That can be useful for developing practical skills, but for researchers to produce a scholarly result, they must work within a methodological base that defines their standards for evidence, ways of analyzing it, and a context in which outcomes can be compared. Sometimes these rules are complicated, as for anthropology:

The ability of anthropologists to get us to take what they say seriously has less to do with either a factual

look or an air of conceptual elegance than it has with their capacity to convince us that what they say is a result of their having actually penetrated (or, if you prefer, been penetrated by) another form of life; of having, one way or another, truly "been there" (Geertz, 1988).

Even when such rules seem so obscure that they are more easily recognized than described, a scholar must still know them to be taken seriously.

Methodology belongs to a social rule set that helps to define what is an interesting question. The reinvention of a COBOL language compiler today would not be a scholarly accomplishment for a computer scientist, whereas computer evolution models can be. What makes an interesting problem changes in every discipline over time. One of my staff at Michigan State University Libraries is working with a computer scientist whose testbed could predict how to respond to a not quite perfectly random number. Some day it might make the basis for an intelligent agent that responds appropriately to a not quite perfectly random user question.

Attracting and applying methodologies from other disciplines does not cheapen an area of study. Such interactions actually strengthens a field's claim to significance. It has been particularly valuable to have computer scientists take an interest in metadata. Projects like Dienst and NCSTRL have, for example, helped to build a bridge between the library and computer science communities through their use of Dublin Core, and NCSTRL is now moving toward Open Archives Information Protocol Metadata Harvesting (Harrison *et al.*, 2003), which the library community has also adopted. Anthropologists have taken a similar interest in the library world, as seen in the widely-read study by Nardi and O'Day (1999) of "information ecologies". Others have followed and will follow.

Conclusion

The education of librarians for the twenty-first century certainly needs to include practical training, just as the education of teaching faculty really ought to include some training in how to manage a classroom. But those librarians who plan to work in a research environment, or who want a research degree like a PhD, need to acquire a methodology that grounds their work in an established scholarly context. Without that form of intellectual rigor our discipline will not produce literature that earns the respect of our university peers. This advice applies not just to Humboldt, but to all of us who do research in the library community.

Note

- 1 My thanks to Dr Hildegard Schäffler of the Bavarian State Library for her explanations and help in pointing at useful web sites. Any mistakes in this brief description of the German library education model are entirely my own.

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